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FILE 'USPAT2, EUROPATFULL, JAPIO, NLDB, PATOSEP, PATOSWO, INPADOC,  
INSPEC' ENTERED AT 10:18:35 ON 05 JUN 2003

L1 138 S (HAZARD(W)FUNCTION)  
L2 10 S ((HAZARD(W)FUNCTION)(S)SHAPE)  
L3 257 S (HAZARD(3A)(FUNCTION OR GRAPH?))  
L4 2 S L3 AND (CUSTOMER(3A)(VALUE OR LOYAL? OR RETENTION OR TENURE  
L5 0 S ((HAZARD(W)FUNCTION) AND (CHURN OR TURNOVER))  
L6 0 S ((HAZARD(W)FUNCTION) AND (CHURN OR TURNOVER OR TENURE))

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L2 ANSWER 7 OF 10 INSPEC (C) 2003 IEE on STN  
 AN 1986:2707383 INSPEC DN B86046009  
 TI Cost optimization of periodic preventive maintenance.  
 AU Canfield, R.V. (Utah State Univ., Logan, UT, USA)  
 SO IEEE Transactions on Reliability (April 1986) vol.R-35, no.1, p.78-81. 14  
 refs.  
 Price: CCCC 0018-9529/86/0400-0078\$01.00  
 CODEN: IERQAD ISSN: 0018-9529  
 DT Journal  
 TC Economic Aspects; Theoretical  
 CY United States  
 LA English

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L2 ANSWER 7 OF 10 INSPEC (C) 2003 IEE on STN  
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 CODEN: IERQAD ISSN: 0018-9529  
 DT Journal  
 TC Economic Aspects; Theoretical  
 CY ~~United States~~  
 LA English  
 AB Most preventive maintenance (PM) models assume that the **hazard function** of a system after each PM occurrence is restored to like new or to some specified level. Thus, there is no provision for system degradation with time. Operation of many systems causes stress, which results in system degradation and hence an increase in the level of the **hazard function** with time. PM is assumed to relieve stress temporarily and hence to slow the rate of system degradation. However, this type of activity does not reverse degradations, so the **hazard function** is monotone. A **hazard function** is developed here that is consistent with this concept of PM effect. The special case for which PM reduces the operational stress to that of a new system is considered in greater detail. It is shown for this case that the **hazard function** under PM is approximately a 2-parameter Weibull with **shape** parameter 2 for systems with strictly increasing hazard without PM. Cost optimization of the PM intervention interval is obtained by determining the average cost-rate of system operation. When the **hazard function** without PM is unknown, optimization may be achieved through an iterative process. This avoids the necessity of estimating system failure characteristics without PM.  
 CC B0160 Plant engineering, maintenance and safety; B0170N Reliability  
 CT ECONOMICS; MAINTENANCE ENGINEERING; OPTIMISATION; RELIABILITY THEORY  
 ST cost optimisation; periodic preventive maintenance; system degradation; **hazard function**; operational stress; 2-parameter Weibull; intervention interval; iterative process

L2 ANSWER 2 OF 2 COPYRIGHT 2003 Gale Group

AN 97:121890 NLDB

TI Are your customers profitable?

SO Bank Marketing International, (1 Oct 1996) No. 75.

PB Lafferty Publications Ltd.

DT Newsletter

LA English

WC 1814

TX In the third of a series of articles on database marketing, Michael Meltzer evaluates individual customer profitability and customer lifetime value

CUSTOMERS ARE not created equal, yet the systems and services provided by many banks appear to make this assumption. But, no matter how eager banks are to change, providing a high-quality service to all customers is simply not economically viable. Especially when an individual customer's value to the bank is unknown.

To assess potential profitability, banks need to know how much it costs to service customers. They also need to know how much profit customers bring in by segment, type and individual. And they need to establish the characteristics of those customers they wish to acquire and retain.

Quality of service needs to be examined, as does the bank's philosophy towards customer management. A bank must identify how much should be spent on keeping the right, ie: profitable, customers and apply this knowledge to managing future acquisition and retention planning.

#### Traditional accounting systems

To determine customer profitability, a bank would normally look to its existing costing systems. However, these invariably only look at profits for the current year and take no account of the potential profits or losses attached to individuals or customer segments.

Management accounting, which dates back to the Industrial Revolution, has traditionally focused on cost allocation rather than customer or bank performance. This is because material costs and direct labour have been the largest proportion of a manufacturer's total costs and the rest has been overhead.

Unfortunately, in the new world of service-dominated economies, old accounting methods distort profitability. Almost every activity can be seen as undifferentiated overhead.

Only in the last few years have the developments and activities necessary to take account of the changes in production processes and the needs of the services sector, begun to be implemented.

Where there are attempts to identify product costs in a bank, it is still the current year's contribution to the bottom line that is looked at. Few attempt to look at total relationship revenues and associated costs, or attempt to see these as important measures of bank performance.

In many banks, the whole accounting process is still geared to an older banking paradigm and even the use of marginal costing is frowned upon.

There is an opportunity today given the emergence of new technologies, like data warehousing with analytical extensions, to refocus accounting systems to reflect what measures of performance are important to a bank.

#### Activity Based Costing (ABC)

Another approach often put forward by consultants is activity-based costing. This is the best approach when banks have the time to implement it, and are prepared to give full management support.

The simple premise of activity-based costing is that costs must be understood so that they can be allocated. This means understanding and identifying the cost drivers that relate to activities and transactions so that the cost of a process can be identified end to end.

The newer approaches are all about providing better information for better decisions and measuring performance in a services environment where traditional methods just don't cut it.

#### Relative/proxy values

If a bank wanted to **calculate customer value** but was unable to implement ABC immediately, it could choose a proxy, or relative value. However, since it is difficult to come up with transferred costs that are acceptable to all, compromise is generally the only way forward.

On the basis of these relative values or scores, customers can be grouped/segmented and then specific treatments implemented in line with the bank's overall customer strategies.

One of the benefits of a data warehouse is its ability to store data at its lowest level of granularity. Customer transactions can be stored and related back to the imposed costs. Measurements can be made by changing volume, value of transactions, distribution channels used, patterns of expenditure, services used and so on.

As activity levels alter, a bank can use statistical methods to identify significant patterns and thereby get a better picture of cost volume/activity relationships. This allows for more realistic values to be assigned to the customer base. From this a bank can begin to identify potentially profitable segments.

Of course, it should be kept in mind that banks are also under evaluation - by the customers. Once a potentially lucrative customer segment has been selected, a bank can then set about understanding what that segment wants from its bank.

#### Who to retain?

Once a bank knows the value of a customer, it can decide whether to keep and develop them or help them find alternative banking arrangements. This means looking at a customer's actual long-term value to the bank.

The process of changing from a traditional acquisition focus to one based on retention and acquisition will necessitate looking at estimated customer **lifetime value** (LTV).

This means identifying the sales of each product or service by customer, by number of accounts held or by tenure. Finding out the frequency of customer defection, and likelihood of switching, will enable a bank to better understand future revenue streams.

By analysing customer tenure data, a bank can predict the length of time a customer is likely to stay with it - the lifetime in the equation. Future income can then be measured, net of transaction costs and discounted by a rate the bank chooses as its net present value.

The equation gets more complex as factors such as propensity to defect are introduced at a macro level, or as cost models are altered over time. A

bank could decide to assign a rank order to its customer base, based on the LTV, as an approximation of true value. This way customers to whom it is worth allocating resources can be identified.

Depending on the depth of analysis, a bank can then start to make decisions about how to build a customer profile and apply approximate profitability ratings.

Based on this analysis, one particular bank changed its policy of " no fees anytime, anywhere, to anyone " to a more information-driven criteria that led to an increase in identifiable segment-of-one profits.

There are numerous ways of looking at profitability but a bank needs to turn its data into actionable information to enable it to get at just some of the means of measurement identified in Figure 1.

#### Customer profitability information

In-depth customer profitability information enables a bank to focus on individual customer identification (segments don't make decisions, individuals do).

The opportunity to design products and services that appeal to the individual becomes possible when individual profitability is coupled with behavioural propensities. This enables a range of customer values to be calculated that can feed a variety of customer action models.

If a bank wants to design new products and services, a good place to start is customer profitability. Technology that deals with administration and analysis can make realising these opportunities easier. Marketing is not about making the sale, but about securing a volume of future revenues from customers with a potential long-term tenure and a high propensity to purchase other products and services.

#### Customer attributes

Granular data and customer attributes that reflect levels of profitability, dormancy, loyalty, purchase prospects and potential defection characteristics enable you to separate customers.

This type of separation helps you understand who the customers really are and their value. Your retention strategies should incorporate this information.

Some banks tend to focus attention unknowingly on the unprofitable customers as they do not understand the added dimensions that customer profitability modelling offers. By using behavioural and predictive modelling techniques, banks can produce propensity scores and potential product purchase gaps that can be applied to so called "unprofitable" customers:

Student accounts are often seen as unprofitable, but apply a common sense lifetime value to them and the picture changes dramatically.

Dormant accounts become a challenge that dialogue could alter. The higher net-worth individual may be a highly desirable customer, yet he or she may not be your best bet for greater or quicker returns for the marketing money you expend.

Certain products such as investment accounts, term deposits and Certificates of Deposit (where available) are arguably ones that induce movement in the customer base.

However, by understanding the profitability of your individual customers coupled with their defection and purchase propensities, you could target these types of products at a particular customer tier with a lower expectation of movement.

#### Adding Value

The work of marketing, once it has access to better information regarding relative customer profitability, moves to managing retention and acquisition as a means of creating a stable stream of profits to the bank.

The other side is managing the bank's brand of services and products supplied to the customer in a way that provides value to the customer. By continuing to look for ways to improve the relationship with the customer, competitive differentiation can be created.

The idea of one-to-one marketing becomes an important weapon in the bank marketer's armoury in deciding to serve a particular segment in a way which creates a bond with competitive advantages. As relationships deepen and more services and products are purchased the competitive barriers to entry increase. Relationship pricing becomes an effective solution to aggressive price competitors. By knowing the **lifetime value** of a customer you can offer lower price, bundled services. You can even drop a charge altogether and still know you will make a good return on your investment.

Marketing's work is never done

Marketing must take on the role of information manager for the bank. It is the information the bank holds and its application that will enable differentiation and the means to achieve competitive advantage.

This growth in, and nurturing of, information about their customers as individuals has for some banks become one of their core skills.

Armed with a view of profitability on a customer by customer basis, and the information that surrounds that customer, the bank is in a position to start understanding its customer base.

Individual customer profitability coupled with a range of propensity models forms the foundation for marketing to design and effectively supply new service and product offerings.

These offerings will be priced and have a range of attributes that are tailored to a particular customer's profile. In the world of mass customisation, the task of marketing is to understand the needs and preferences of customers as individuals. The services offered must be of value to the customer as must any dialogue the bank has with the customer.

In the next issue of Bank Marketing International, we will deal with customer value - in terms of how the actual customer values what his or her bank provides them - and how a bank can measure this for profit.

Figure 1

Profitability By

Profitability By

Profitability By

# Bank

Transaction

Customer

# Region

Account

Household

# City/Town	Product	Personal Attribute
Branch/Deptartment	Group/Manager	Personal Propensities
# Channel	Division	Segment
# Sales Person	Area	Area code
# Time Period	Time Period	Time Period

Source: Adapted from Gartner Group

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 Ireland. Phone 353-1-671-8022 Fax 353-1-671-8520.

CT BN Banking; FS Financial Services

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L2 ANSWER 1 OF 10 INSPEC COPYRIGHT 2003 IEE  
AN 2003:7524449 INSPEC DN B2003-03-0240Z-024; C2003-03-1140Z-022  
TI Choice of parametric accelerated life and proportional hazards models for survival data: asymptotic results.  
AU Hutton, J.L. (Dept. of Stat., Warwick Univ., Coventry, UK); Monaghan, P.F.  
SO Lifetime Data Analysis (Dec. 2002) vol.8, no.4, p.375-93. 24 refs.  
Published by: Kluwer Academic Publishers  
CODEN: LDANFI ISSN: 1380-7870  
SICI: 1380-7870(200212)8:4L:375:CPAL;1-E  
DT Journal  
TC Practical; Theoretical  
CY Netherlands  
LA English  
AB We discuss the impact of misspecifying fully parametric proportional hazards and accelerated life models. For the uncensored case, misspecified accelerated life models give asymptotically unbiased estimates of covariate effect, but the **shape** and scale parameters depend on the misspecification. The covariate, **shape** and scale parameters differ in the censored case. Parametric proportional hazards models do not have a sound justification for general use: estimates from misspecified models can be very biased, and misleading results for the **shape** of the **hazard function** can arise. Misspecified survival functions are more biased at the extremes than the centre. Asymptotic and first order results are compared. If a model is misspecified, the size of Wald tests will be underestimated. Use of the sandwich estimator of standard error gives tests of the correct size, but ~~misspecification leads to a loss of power. Accelerated life models are~~ more robust to misspecification because of their log-linear form. In preliminary data analysis, practitioners should investigate proportional hazards and accelerated life models; software is readily available for several such models.  
CC B0240Z Other topics in statistics; C1140Z Other topics in statistics  
CT LIFE TESTING; STATISTICAL ANALYSIS  
ST parametric accelerated life; proportional hazards models; survival data; asymptotic results; fully parametric proportional hazards; asymptotically unbiased estimates; covariate effect; scale parameters; shape parameters; Wald tests



L5 ANSWER 9 OF 14 COPYRIGHT 2003 Gale Group

AN 2000:17012 NLDB

TI SAS Institute expands partnerships with leading global organizations.

SO M2 Presswire, (20 Jan 2000) .

PB M2 Communications Ltd.

DT Newsletter

LA English

WC 1486

TX M2 PRESSWIRE-20 January 2000-SAS INSTITUTE: SAS Institute expands partnerships with leading global organizations (C)1994-2000 M2 COMMUNICATIONS LTD

RDATE:19012000

\* E-intelligence initiative, award-winning data warehousing and data mining software boost Institute growth

CARY, N.C -- SAS Institute, the market leader in data warehousing and decision support, today announced fourth-quarter 1999 customer wins in its key initiative areas of data warehousing and data mining, as well as in its new e-business initiative. These customer agreements helped Institute revenues top \$1 billion for the year. Revenue figures will be released next month. From New York to the United Kingdom, from Australia to Denmark, companies worldwide turn to SAS Institute to help manage the huge volumes of data they collect. With SAS software, these customers transform their data into useful information for improved decision-making.

#### E-business-improving Web sites

Iron Trades Insurance, an employee liability insurance provider and one of the U.K.'s top 20 general insurers, licensed SAS software to profile customers visiting its e-commerce site, Ironsure.com, and to analyze click-stream data in order to improve the site structure. "SAS software is crucially important to the success of Ironsure.com," said David Shelley, general manager of Iron Trades. "The Internet is a highly dynamic environment, and being able to track the business and analyze trends is vital. The extraction of data, and its presentation as information in meaningful reports that are immediately available, is absolutely key to our management decision-making process. In this context, our SAS software-based system is one of the key components that we need in order to use the Internet to achieve our strategic goals."

#### Data warehousing-spanning industries worldwide

ENGEN Petroleum Ltd., the second-largest integrated oil company in South Africa, licensed SAS/Warehouse Administrator software to build a data warehouse and subsequent data marts as part of a Web-based balanced scorecard project. By using Warehouse Administrator, knowledge workers with no formal IT experience can access and manage the data needed to support more than 100 balanced scorecard measures.

MD Foods, Denmark's largest industrial company and processor of more than 70 percent of the milk produced in the country, entered a multiyear global agreement with SAS Institute. Now, company employees worldwide will gain access to a SAS software-based data warehouse and advanced budgeting system currently being used only in Denmark. Explained MD Foods IT Director Kell Hauser, "For several years we have used SAS software in different areas of the organization. With the new agreement, we are now able to spread usage of the software-unimpeded-to all our offices worldwide."

Queensland Rail (QR), a provider of public and freight transportation

for the state of Queensland, Australia, recently purchased SAS software to enhance its data warehousing capabilities. The corporate data warehouse provides QR with a consolidated and integrated view of organizational information, helping it excel in meeting customer needs. The QR data warehouse is not limited to one functional area, but caters to financial, employee relations, and operationally based business areas as well.

Rosina Food Products Inc., the family-owned manufacturer of frozen Italian specialty products based in Buffalo, N.Y., selected a SAS data warehousing and reporting solution. From IT users to executives, the solution will be used for a variety of reporting needs, such as profitability by region or by customer. In addition, Rosina will use SAS software to determine productivity and efficiency within its manufacturing production lines.

Starwood Hotels and Resorts Worldwide Inc., one of the world's leading hotel and leisure companies, turned to the SAS intelligent warehousing solution and multidimensional database (MDDb) software to step up the performance of its ad hoc financial query and reporting systems. Starwood, which operates St. Regis, The Luxury Collection, Westin, Sheraton, Four Points, and W brands, could not easily access and report on data in its enterprise resource planning (ERP) system in a timely fashion. Now, Starwood can combine and report on information from its SAP R/3, Hyperion, and externally purchased data in a fraction of the time it previously took to complete this task.

Enterprise Miner—a key player in customer relationship management U.S.-based Bell Atlantic, a premier provider of advanced wireline voice and data services, the market leader in wireless services, and the world's largest publishers of directory information, recently selected SAS Enterprise Miner as an integral part of its Galaxy project, a major effort to revolutionize its customer relationship management (CRM). Initially, Bell Atlantic will use Enterprise Miner to segment its customer base, determine what package of products and services best fit their needs, calculate **churn**, and estimate the **lifetime value** of a **customer**.

Cecile, a major Japanese mail-order firm, began implementing Enterprise Miner to analyze its 17 million customer database, one of the largest in the mail-order industry. The company plans to segment its customer base into more than 100 groups based on purchasing habits, trends, and tastes. With Enterprise Miner, Cecile can prepare individualized catalogs, direct mail campaigns, and marketing activities that offer better cost performance.

France Telecom, the leading telecommunications company in France, has licensed SAS software, including Enterprise Miner, for **churn** management, marketing campaign targeting and price simulation, as well as for non-CRM applications such as human resource analysis. Specifically, the France Telecom Cartes group is using SAS software to combat **churn**, or customer defection, among its telecom card users. France Telecom customers can charge calls directly to their bank accounts or telephone bills by using a card number and identification code. "We can anticipate cancellations now," explained Catherine Simon, the company's market segmentation manager. "As soon as we notice certain indicators such as a regular or massive decrease in the use of the card, we can identify those customers and take steps to keep them. At the other end of the chain, we also model prospective customers in order to offer them the most appropriate products."

T-Mobil, the mobile telephone arm of Europe's leading telecommunications provider Deutsche Telekom, has chosen Enterprise Miner for its customer relationship management applications, including

**churn** management. "By using SAS software for **churn** management, we have identified about 30 percent more **churners** than with our previous system," said Detlef Wessling, head of database marketing for the German company. "This means we can now take corrective action to avoid those customers leaving us."

Japan's Toppan Printing Co., Ltd., has selected Enterprise Miner to power marketing services offered by Toppan I.D.M. The SAS solution will help Toppan I.D.M., Japan's first comprehensive database marketing business, provide marketing, consulting, and technical support services to clients. These new marketing services will employ data-mining techniques to measure the results of marketing promotions.

Valassis Communications, a leading American marketing-services company, provides products and services to consumer package-goods companies and franchise retailers. Valassis, whose products include free-standing newspaper inserts, sampling programs, and other consultative marketing services, recently began implementing the SAS Solution for Customer Relationship Management (CRM) to assist with a new service: direct-mail database marketing. With the SAS Solution for CRM, Valassis will be able to offer this service to a variety of business segments, including restaurant franchises, retail stores and automotive dealerships.

Government agencies continue to expand use of SAS software EIS LLC, a U.S. government contractor specializing in government business development and reselling, entered into a multiyear partnership with SAS Institute. EIS will provide new business development and reseller services to the Institute. "The partnership with EIS LLC provides the Institute's public sector group direct support from an organization led by some of the industry's leading figures in business development and reseller activities," said Jeff Mudd, the Institute's vice president of public sector sales and marketing. "The partnership builds on a message and infrastructure that will enable us to experience significant growth in our market."

The United States Department of Agriculture recently signed a multiyear desktop and server agreement with the Institute, the last of three strategic agreements that now blanket the USDA. The first two agreements covered mainframe data centers nationwide. Collectively, these agreements greatly improve the efficiency with which a government entity can buy, maintain, and implement SAS software solutions.

#### About SAS Institute

SAS Institute, the world's largest privately held software company, is the leader in decision support and data warehousing, providing integrated enterprise information-delivery solutions and e-business solutions. The Institute markets packaged business solutions for vertical industry and departmental applications, as well as an integrated suite of software tools and consulting services. These allow companies to transform the wide variety of data within their organizations into information that business users and researchers need to make better decisions. SAS software and services are used at more than 33,000 business, government, and university sites in 115 countries. SAS Institute's 1999 revenues topped \$1 billion.

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CT BUSN Any type of business; INTL Business, International  
NAIC 51121 Software Publishers

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L5 ANSWER 12 OF 14 COPYRIGHT 2003 Gale Group

AN 1998:31695 NLDB

TI CINCINNATI BELL: Cincinnati Bell announces integrated churn management pilot

SO M2 Presswire, (2 Feb 1998) .

PB M2 Communications

DT Newsletter

LA English

WC 742

TX M2 PRESSWIRE-2 February 1998-CINCINNATI BELL: Cincinnati Bell announces integrated churn management pilot (C)1994-98 M2 COMMUNICATIONS LTD

RDATE:270198

\* Results could affect wireline, long distance, broadband, and Internet also

Cincinnati Bell Inc. (NYSE: CSN) and Comcast Cellular Communications, Inc. have signed an agreement to conduct a six-month programme to test an integrated solution for managing customer **churn**, which occurs when a customer ends service with a carrier. The innovative pilot project is designed to improve customer loyalty and increase carrier revenue.

The unique solution to be tested integrates the world-class database management strengths and proactive customer-contact capabilities of CBIS and MATRIXX Marketing, the customer-care businesses of Cincinnati Bell Inc.

"Working together, CBIS and MATRIXX are focussed on delivering an industry-leading **churn** management solution through the creative application of both new and proven technologies and services," said James F. Orr, chief operating officer for Cincinnati Bell Inc. "We believe MATRIXX and CBIS are the best in the world at providing outsourced customer care and billing solutions for the communications industry. Carriers benefit from the strong relationship between MATRIXX and CBIS and from the communications-industry knowledge and financial strength of Cincinnati Bell Inc."

Orr said the pilot project for Comcast Cellular will point the way toward the development of CBIS-MATRIXX **churn** management solutions for other communications services, including wireline, long distance, broadband, and Internet access services.

The unique CBIS-MATRIXX **churn** management solution has three data-driven, integrated components: an engine that predicts **churn** behaviour, customised contacts with targeted customers, and proactive customer care. All three will be used to analyse defined segments of Comcast Cellular's customer base.

Benefiting from CBIS's long-term relationship with Comcast Cellular for billing and customer support in a service-bureau environment, the **churn** management solution will use accumulated billing information stored in a data warehouse to:

- identify and prioritise customers who are most likely to switch carriers

- calculate the **lifetime value** of the **customer** and the optimum rate plan

- evaluate the financial implications of a wide range of actions.

MATRIX Marketing will determine the specific product and service attributes valued by certain groups of customers to better predict **churn** and develop new retention strategies. MATRIX's customer service representatives will be trained and equipped to carry out the recommended contacts with specific customers, ensuring that every contact is customised and consistent with the **churn**-reduction goals established by Comcast. Results of each contact will be returned to the system for continuous improvement of the analytical tools and processes.

Notes to the Editor:

#### ABOUT COMCAST CELLULAR COMMUNICATIONS

Comcast Cellular Communications, Inc., a subsidiary of Comcast Corporation, serves a population of 8.2 million in Pennsylvania, New Jersey, and Delaware. Headquartered in Wayne, PA, it is the nation's fourth largest non-wireline carrier, and the first in the country to achieve a complete conversion of its network to provide both border-to-border digital and analogue technology. The company is known for its innovative approach to customer satisfaction, creating new products and services such as an enhanced directory assistance programme called "Comcast Connect", 24-hour customer service, and voice activated dialling, among others.

#### ABOUT CINCINNATI BELL

Cincinnati Bell Inc. is the global leader in helping communications companies achieve a competitive advantage through advanced billing, customer information and telephone marketing solutions, as well a premier provider of local and long distance communications services.

CBIS is the global leader in the provision and management of customer care and billing solutions for the communications industry. CBIS solutions help, clients compete and differentiate themselves more effectively in the broad range of wireless, wireline, cable TV, Internet and emerging communications services. MATRIX Marketing Inc. is the world leader in providing outsourced customer care solutions, which increase sales, improve customer service and lower operating costs for leading companies in communications, technology, consumer goods, financial services, and 800-number direct response.

CBIS uses its extensive billing systems expertise and service bureau experience to create advantages for leading companies in wireless, wireline, cable, and emerging communications services. CBIS is a subsidiary of Cincinnati Bell Inc. (NYSE:CSN) and its European headquarters is based in Slough, Berks. CBIS is on the Internet at <http://www.cbis.com>

Cincinnati Bell and its family of businesses are on the Internet at [www.cinbellinc.com](http://www.cinbellinc.com)

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CT CE Computers and Electronics

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